GYS S71

Last update :
28/02/06

USER'S MANUAL FOR

SPOT WELDING MACHINE

GYSPOT 2400

Nomenclature n°72234

Thank you for your choice ! Before installing and using the product or before maintenance, please read carefully the following safety recommendations in order to avoid accidents to the users or damage the welding installation.
On no account GYS can be responsible for the damages occurring to persons or things after the use of the machine in the following circumstances :

- Modification or neutralization of safety elements,
- Non-respect of the recommendations written in the user's manual,
- Modification of the characteristics of the product,
- Use of accessories different from the ones delivered by GYS,
- Non-respect of the regulations and particular dispositions in the country where the machine is installed.

III / PRESENTATION

This device has been designed to eliminate bumps and shocks from steel car body.

IV / SAFETY NORMS AND GENERAL PRECAUTIONS

GENERALITIES

- Before dismounting the device body, unplug the alimentation cable.
- Operators should have received the appropriate training.
- Maintenance and reparations can only be carried out by qualified persons.
- The operator is responsible for respect of the car manufacturer' recommendations, concerning the protection of electrical and electronic equipments (car computer, car radio, alarm, air bag, etc…).
- The secondary conductors can reach a very high temperature and remain hot very long after having stopped the machine. Be careful : high risk of burns.
- It is necessary to make a regular preventive maintenance.

ELECTRICITY

- Check that the unit is connected to the earth and that the connection to the earth is in good condition.
- Check that the workbench is connected to the earth.
- Make sure that the operator makes no contact with the metal parts to be welded without any protection or with wet clothes.
- Avoid being in contact with the welding part.
- Don't make spot welding operations in very wet areas or on a wet floor.
- Don't weld with worn out cables. Check that there is no default with the isolation with stripped cables or with loose connections, and that there is no cooling liquid leak.
- Before controlling, repairing or changing electrodes, please switch off and disconnect the unit directly from the plug.

EYE AND BODY PROTECTION

- During the welding process, the operator must be protected from the eventual flashes of the electrical arc with protection clothes like leather gloves, welding aprons, safety shoes, welding helmets or glasses for filtering radiations and projections. In the same way, during operations of rubbing and hammering, the operator must wear eye protection.
- Don't wear rings, watches, or jewellery, which are current lead and can create burns.
- All the protection boards must be in good condition and maintained in place.

Never look at a welding arc without any eye protection.
Protect the environment near the product against projections and reflections.

SMOKES AND GAS

- Welding operations cause the emission of toxic smokes and harmful metallic dusts. Use the device in a sheltered place equipped with smoke aspirators.
- The operator must wear an anti smoke mask.
- The welding material must be degreased and cleaned in order to limit the toxic gas emission during the welding process.

FIRE

- Make sure that the sparks won't cause fire especially near inflammable material.
- Check that fire extinguishers are near the operator.
- Leave the product in a place with air sniffers.
- Don't weld neither on containers of combustibles and lubricants, even empty, nor on containers with inflammable material.
- Don't weld in an atmosphere full of inflammable gas or fuel steam.

ELECTRO-MAGNETIC COMPATIBILITY

Nearby the spot-welding machine, check that:
- there is no other power supply cable nor control lines, nor phone cables, nor radio or TV reception appliances, nor watches, nor mobile phones, nor magnetic cards, nor computers nor any other electronic appliance.
- there is in the surroundings (minimum 3 meters of each point of the product) no persons using active medical appliances (pacemakers, acoustic prosthetics).
Make supplementary protections if there are other products being used in the same environment.

III / DECLARATION OF CONFORMITY

The device described in this manual is conform to the directives EEC 83/336 (Electromagnetic compatibility) and 73/23 (Low Tension) for a professional or advanced use. This conformity was established in respect to norms EN 50063 of July 1990 (directive Low Tension) and EN 50199 (directive electromagnetic compatibility).

IV / CONNECTION OF THE ELECTRIC ALIMENTATION

Single phase alimentation 230V 50Hz protected by a 16A circuit-breaker.
If the device gets the installation protection circuit-breaker to switch on, check that the caliber of the circuit-breaker is good (16A).

V / DESCRIPTION OF THE MACHINE

Detection of main tension indicator		Potentiometer to set spot duration
Thermal protection indicator		Range 2 : levelling and welding of undulated wire
		Range 1 : welding of "stars" and "butterflies".

VI / USE

Connect the copper earth pad with the terminal of the generator cable.
Firmly fix the earth pad, as close of the working area as possible.
Select the mode to be used thanks to the setting potentiometer :

- Range 1 (left) : welding of stars or "butterflies" for metal sheet pulling operations,
- Range 2 (right) : welding of undulated wire or levelling of shocks with the appropriate copper cap.

Do not set the potentiometer between two setting ranges. In that position, the device does not make any welding spot.

Place the appropriate tool on the extremity of the gun and firmly tighten the mandrel screw.
Place the electrode on the metal sheet to be repaired. The device will automatically make the welding spot. To make another point, remove the electrode from the metal sheet during a short period and place it back.
Thermal protection : in the case of an intensive use, an internal dispositive allows to stop the device so that it can cool down. A yellow indicator will switch on, on the front panel. The cut can last several minutes.